

# Army Lodging Wellness Recommendation

---



## Final Submittal - USMA West Point

May 21, 2004

**3D/I**

## USMA West Point

---

Table of Contents	Section 1 – Wellness Recommendation	1-1
	Introduction	1-1
	Methodology	1-1
	Demand Summary	1-2
	Lodging Summary	1-3
	Cost Summary	1-3
	Recommendation / Conclusion	1-4
	Section 2 – Lodging Master Plan	2-1
	Installation Summary	2-1
	Master Plan Summary	2-1
	Existing Lodging Summary	2-2
	New Lodging Building	2-3
	Section 3 – Demand Analysis	3-1
	Overview	3-1
	On Post Inventory	3-1
	Demand and Utilization	3-2
	Private Market Capability	3-3
	Demand Requirement Determination	3-5
	Summary and Recommendations	3-7
	Section 4 – Facility Assessment / Plans	4-1
	Appendix	A
Areas and Occupancy Matrix	A-1	

# Section 1 Wellness Recommendation

The Army Lodging Wellness Program is conducted under the direction and guidance of Headquarters Army, Lodging Division (CFSC). The goal of the United States Military Academy (USMA) at West Point Lodging Wellness Plan is to provide a comprehensive assessment and planning tool to support long term capitalization of Army Lodging facilities. The Demand Analysis determines installation Lodging requirements, and reviews off-post Lodging availability and cost, arriving at the most economical solution for meeting total transient requirements and providing a final determination of the appropriate number and configuration of on-post Lodging rooms. Individual Lodging facility condition (building and building systems) and functional assessments are included with both recommendations and costs. Facility improvement and renovation versus replacement/new construction recommendations are developed based on the individual facility assessments and cost. A Lodging Master Plan for the installation is developed including replacement/new construction and proposed new facility siting. A final recommendation defines the method for achieving the final wellness solution for the installation and will assist with project planning.

## Methodology

---

### ***Demand***

- Demand for Lodging facilities is analyzed and adjusted for atypical past occurrences and for expected changes in the installation's population, housing, or mission. Two primary methods are used to calculate the optimum number of rooms: the number necessary to meet 80% of official demand and the number projected to be the most efficient from an operating cost perspective.
- The off-post private market is assessed for capacity and representative rates. A determination is made if the private market has the capability to handle overflow requirements of official demand.
- Room mix recommendation is based on the segmentation of the Permanent Change of Station (PCS)/Temporary Duty (TDY) mix and the expected lengths of stay. This produces the final determination of the appropriate number and configuration of rooms for the installation.

### **Assessment**

- Existing Lodging facilities are assessed based on building and building system conditions followed by an assessment for conformance to the Army Lodging functional standards. Facilities assessed to be in fair to good condition, and meeting the majority of functional requirements, are considered for renovation. Renovation of Lodging facilities found in poor condition and configured significantly different than current standards will typically exceed 50% of the replacement costs and are recommended for replacement/new construction. This decision is supported by renovation cost comparisons as well as the assessment documentation.
- The age, condition, and existing configuration of all of the existing Lodging buildings support a finding of replacement through new construction in lieu of renovation.
- Force protection construction criteria has a significant impact on new construction. This Wellness recommendation, including building assessment, site analysis, and proposed Lodging construction, incorporates these requirements from the UFC 4-010-01, in our analysis and recommendations. Consistent with this guidance, force protection mitigation is not considered in renovation unless the renovation cost exceeds 50% of the replacement cost for a facility.

## **Demand Summary**

---

Due to the heightened demand that occurs May through July, and the characteristics of the private market during this time, we recommend the number of rooms provided by the “80% of Annual Official Demand” criterion. Using this criterion, we expect an average occupancy of 52%, and 93% of the official demand is met.

### ***Room Count and Mix Recommendation***

42 rooms

Proposed room mix:

- 12 standard guest rooms;
- 12 extended-stay guest rooms offering a kitchenette;
- 18 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

## Lodging Summary

The following Lodging for West Point is summarized by building, including number of existing rooms and number of proposed rooms determined as part of the installation Wellness recommendation. The table also indicates the number of rooms required for a new Lodging facility based on buildings not proposed for re-use due to poor existing conditions and high renovation costs.

Building Number	Existing Rooms					Wellness Recommendation (FY 08)			
	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Rooms	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
<b>Wellness Recommendation based on Demand Analysis</b>									
						42	12	12	18
<b>Existing Lodging Facilities</b>									
785	35		24	11		0			
2113	34		3	31		0			
<b>Totals</b>	<b>69</b>	<b>0</b>	<b>27</b>	<b>42</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>New Proposed Lodging Facility</b>									
						42	12	12	18
<b>Total Lodging Rooms</b>									
						42	12	12	18

### Summary of Room Count and Mix based on Configuration

- 42 rooms
  - 12 standard guest rooms;
  - 12 extended-stay guest rooms offering a kitchenette;
  - 18 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

## Cost Summary

### Project Cost

The following table summarizes the Condition Analysis, Renovation, and Replacement Cost by individual Lodging facilities. The Wellness Recommendation indicates cost by building based on recommendation, including the proposed facility cost.

Building Number	Existing Units						Wellness Recommendation (FY 08)			
	Total Rooms	Condition Analysis Cost*	Upgrade Renovation Cost**	Renovation Cost***	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Total Rooms	Total Cost	Condition Analysis / Upgrade Renovation Cost	New Construction Cost
<b>Existing Lodging Facilities</b>										
785	35	\$ 2,244,989		*****	\$ 3,849,273	58.32%	0			
2113	34	\$ 3,369,726		*****	\$ 6,330,759	53.23%	0			
<b>Totals</b>	<b>69</b>	<b>\$ 5,614,715</b>			<b>\$ 10,180,032</b>		<b>0</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>New Proposed Lodging Facility</b>										
							42	\$ 6,277,550		\$ 6,277,550
<b>Total</b>										
							42	\$ 6,277,550	\$ -	\$ 6,277,550

\* The Condition Analysis Cost is for making the building well based on Army Lodging Standards without changing how the building functions.

\*\* The Upgrade Renovation Cost includes Condition Assessment items and Upgrade Renovation Cost to meet Army Lodging Standards.

\*\*\* The Renovation Cost is for making the building well based on Army Lodging Standards including making functional changes.

\*\*\*\* If the Condition Analysis Cost is under 50% of the Replacement Cost, the Renovation Cost is used.

\*\*\*\*\* If the Condition Analysis Cost is over 50% of the Replacement Cost, a Renovation Cost is not included.

### Cost per Room Comparison

The Wellness Recommendation includes review of off-post Lodging costs compared to the proposed new construction costs on-post. The new construction costs include operating costs, capital assessment costs, and sustainment capital expenditures. The following table summarizes this comparison per room for FY08.

	New Building
Cost per Room at West Point	\$ 100.41
Off Post Cost per Room	\$ 115.43
Difference between On-Post and Off-Post Lodging per room	\$ 15.02
% Savings of On-Post to Off-Post Lodging	13.0%

The Cost Per Room at West Point is based on:

Renovation / New Construction Cost w/ inflation to FY 08

Average of last 4 years Operating Cost w/ inflation to FY 08

Cap Ex Cost

Capital Assessment Cost to FY 08

Off Post Cost is based on current room rate average with inflation to FY 08

Due to this cost difference and the savings of 13%, it is our recommendation that the Army construct a new Lodging facility at USMA West Point in lieu of using off-post lodging to support the determined demand requirement. Off-post lodging will continue to be used for demand beyond the on-post room requirement.

### Recommendations / Conclusions

The Wellness Recommendation for USMA West Point is to construct a new main Lodging facility to accommodate the public and back-of-the house spaces and 42 rooms to meet the 42 room requirement. All

existing Lodging facilities do not meet condition and functional requirements based on cost and shall be removed from the Lodging inventory. A synopsis of recommended building actions follows

- Remove all existing Lodging buildings from the Lodging inventory due to the condition of existing building systems and/or the cost to renovate to meet Army functional criteria.
- Construct a new Lodging facility to include 42 rooms. This building will be planned to include public and back-of-the-house Lodging functions for the total Lodging inventory. The final site selection is required by the Master Planner and Army Lodging.

***Cost Summary***

The cost for this recommendation will be:

New Lodging Facility	\$6,277,550
----------------------	-------------

***Phasing***

Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for buildings 785, and 2113.
- Construct new Lodging facility prior to removing existing Lodging facilities from inventory and removing back-of-the-house and public spaces from building 2113.

## Section 2

### Lodging

### Master Plan

#### Installation Summary

---

The United States Military Academy at West Point, New York, is located on the west bank of the Hudson River, approximately 50 miles north of New York City and 15 miles south of Newburgh, New York. The campus and central installation area comprise only a small portion of the nearly 16,000 acre reservation.

The Major Command at West Point is the United States Military Academy. In addition to housing a college campus with all the academic, social, and athletic activities associated with such, West Point is an active military installation. West Point was officially recognized for its historical significance and contributions to the United States in 1960 when declared a National Historic Landmark, and receives an estimated 3 million tourists visit each year.

The West Point Installation Design Guide, completed in 1996, incorporates specific installation requirements. Land use, future development, and architectural compatibility are integral components of the Guide. Current Lodging room night requirements, Army Guidance on Lodging facility design standards, and force protection construction standards required additional analyses, and were incorporated in to the recommendations of the Lodging Wellness Plan.

The character of West Point has been preserved and enhanced through the use of dark toned natural stone and brick, and medium to high sloped slate roofs. Small window and exterior openings on massive, historical-styled buildings represent the desired architecture of the installation.

#### Master Plan Summary

---

Lodging facilities at West Point were constructed in different phases and are located in separate areas of the installation, one within the main campus, and one outside the gated area of the main campus. A thorough condition and functional assessment of the existing buildings noted significant deficiencies. Additionally, renovation of these buildings to the new Lodging standards and building configuration design is not viable within the 50% threshold.



Although the primary Lodging area is located outside of the installation and not in close proximity to a majority of the community facilities, this site is recommended for planning future Lodging construction, due to significant land use constraints within the main campus area.

The proposed West Point Lodging Master Plan reflects 42 Lodging rooms with a replacement of both of the existing Lodging buildings in a new Lodging facility. This new facility will combine required rooms, public areas and service functions into a cohesive Lodging physical plant in support of the installation requirements.

Siting of the new 42 room Lodging facility is recommended adjacent to the existing main Lodging building 2113. A second viable option locates the facility at the site of building 2113, requiring demolition of this facility. Since this building may be historic, authorization for removal may be required from appropriate authorities. The master planner has not been available to provide guidance on which option is most compatible with the installation master plan. Further guidance is required to select a final Lodging site.

## Existing Lodging Summary

---



### ***Building 0785***

Building 785, constructed in 1973, is a two-story brick structure housing 24 existing extended stay rooms and 11 family suites.. This building is in poor condition and does not provide appropriate support spaces. The cost to make condition assessment improvements will exceed 50% of the replacement cost.

Our recommendation is to remove building 785 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the USMA West Point Wellness Solution and Lodging Master Plan.



### ***Building 2113***

Building 2113, constructed in 1948, is a historical four-story brick structure housing 31 family suites and 3 single rooms. This facility is located outside of the gated area of the main campus. Although this facility was renovated within the last 5 years, the major building systems need replacement and the facility does not meet Lodging standards and cannot be reconfigured without significant reconstruction. Although the cost to make condition assessment improvements is just over 50% of the replacement cost, it is our recommendation to remove this facility from Lodging inventory due to the age of the building.

It should be noted that this structure may be historic and some Army Lodging functional requirements indicated in the report would require clearance from SHPO or through Army Alternate Procedures: therefore, some of the requirements may need modification, in which case the prices for implementation may vary from the cost models applied.

Our recommendation is to remove building 2113 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the USMA West Point Wellness Solution and Lodging Master Plan.

## **New Lodging Building**

---

The proposed replacement/new Lodging facility includes 42 rooms; 12 standard guest rooms, 12 extended stay rooms, and 18 family suites. The lobby and back-of-the-house spaces are sized for the 42 total Lodging rooms on the installation.

The proposed new construction will be sited adjacent to the site of the existing main Lodging facility. A second viable option locates the facility at the site of building 2113, requiring demolition of this facility. Since this building may be historic, authorization for removal may be required from appropriate authorities. The lobby will be constructed of glass exterior curtain walls allowing maximum view and circulation. The proposed building construction is steel frame with CMU infill walls, sloped slate tile roof, and a brick exterior veneer. The architectural guidance for West Point is very specific and is incorporated into the cost of the new facility.

The mass and scale of the proposed building is critical. Based on the number of required rooms and to limit the length of the wings, the recommendation of this plan is to provide varying roof levels to promote interest and character, while providing relief from the scale of the facility. The core and guest wings would maintain a two-story height and tier to a one-story height at the ends of the wings. A single-story porte-cochere will provide pedestrian scale and emphasis to the entry.

## Areas and Occupancy

The following chart indicates all spaces and size for the proposed new construction based on program and the proposed conceptual building plan.

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
<b>Total Area including 9% Add On Factor (does not include Outside Areas)*</b>			<b>31491</b>	<b>33668</b>
<b>Public Areas</b>			<b>8476</b>	<b>9763</b>
Exterior Entrance	N/A	N/A		0
Vestibule	1	100	0	0
Lobby (includes vestibule)	1	300-500	300-500	961
Front Desk	2 stations	100	100	125
Bell Cart Station	2	12	24	49
Breakfast Bar (Seat/Svc) - min.	1	550	550	559
Passenger Elevators	1	64	128	148
Stairs	2	230	920	910
Public Corridors	0	0	5300	5313
Public Telephone Area	2	6	12	42
Vending - Full Service	1	70	70	80
Vending - Ice Only	1	30	30	35
Women - Lobby	1	100	100	177
Men - Lobby	1	100	100	177
Multi-Purpose Room - (250 s.f. min.)	1	250	250	329
Study Rooms (1 per 25 ext stay units)	0	250	0	0
Guest Laundries (2 sets w/d per 75 units)	1	192	192	268
Gear Wash Rooms - (170 s.f. min.)	0	170	0	0
Guest Bulk Storage (1 per 4 family suites)	5	25 ea. 40 w/circ.	200	590
<b>Guest Rooms</b>	<b>42</b>		<b>15300</b>	<b>15300</b>
Guest Room - Standard	12	300	3600	3600
Guest Room - Ext. Stay	12	300	3600	3600
Guest Room - Family Suites	18	450	8100	8100
<b>Back-of-House Areas</b>			<b>5115</b>	<b>5570</b>
Manager's Office	1	180	180	206
Assistant Manager Offices	0	0	0	0
Front Office Manager	1	100	100	101
Admin. Offices	2 staff	200-250	200-250	299
Cash Room	1	50	50	85
Luggage Storage	0	0	0	0
Admin. Conference Room	1	250	250	279
Housekeeping Office	1	120	120	120
Dirty/Clean Linen Storage	0	50	0	0
In-House Laundry - (500 s.f. minimum)	1	500	500	501
Receiving Office	1	75	75	78
Maintenance Area	1	100	100	100
Kitchen Prep Room	1	150	150	167
Break Room	1	140	140	141
Staff Toilet - Unisex	1	100	100	142
Access Corridor	0	0	700	770
Receiving -min.	1	150	150	157
Housekeeping Rooms	1 per 15 units	128	384	430
Service Elevator	0	100	0	0
Data/Commo Room	1	100	100	102
Switch Closets	1	16	16	28
Janitor Closet	1	50	50	58
Mechanical Room	0	0	336	389
General Storage Room - (500 s.f. min.)	1	500	500	545
Bulk Storage Room - (500 s.f. min.)	1	500	500	502
Electrical Room	2	140	280	280
Elevator Equipment Room	1	84	84	90
<b>Exterior</b>			<b>400</b>	
Playground (Outdoor)	1	0	0	0
Grounds Maintenance	1	400	400	0
* Add on factor to cover s.f. for partitions and any space not included in numbers above.				

## Cost Summary

The New Construction Cost: \$6,277,550

- The cost is for a building of 42 rooms.
- All costs are adjusted by the Area Cost Factor of 115% for USMA West Point, NJ.

## Cost Analysis

### Summary of Project Replacement Cost (based on 33,668 s.f.)

CSI	Percent	Amount
<b>02 Site Work</b>	<b>4.05%</b>	<b>\$171,729.64</b>
Parking Lots		\$41,078.00
Site Earthwork		\$130,651.64
<b>03 Concrete</b>	<b>17.20%</b>	<b>\$729,155.21</b>
Floor Construction		\$430,563.46
Slab on Grade		\$96,715.00
Stair Construction		\$8,452.50
Standard Foundations		\$193,424.25
<b>04 Masonry</b>	<b>5.54%</b>	<b>\$234,924.18</b>
Exterior Walls		\$234,924.18
<b>07 Thermal &amp; Moisture Protection</b>	<b>8.04%</b>	<b>\$340,820.56</b>
Roof Construction		\$103,134.84
Roof Coverings		\$237,685.72
<b>08 Doors &amp; Windows</b>	<b>7.32%</b>	<b>\$310,248.15</b>
Exterior Doors		\$16,296.65
Exterior Windows		\$239,200.00
Interior Doors		\$54,751.50
<b>09 Finishes</b>	<b>19.83%</b>	<b>\$840,834.94</b>
Ceiling Finishes		\$279,903.79
Floor Finishes		\$271,562.40
Partitions		\$164,219.72
Wall Finishes		\$125,149.03
<b>11 Equipment</b>	<b>3.31%</b>	<b>\$140,339.68</b>
Commercial Equipment		\$17,393.75
Other Equipment		\$122,945.93
<b>13 Special Construction</b>	<b>5.49%</b>	<b>\$232,882.80</b>
Communications & Security		\$104,835.94

Sprinklers		\$128,046.85
<b>14 Conveying Systems</b>	<b>2.91%</b>	<b>\$123,510.00</b>
Elevators and Lifts		\$123,510.00
<b>15 Mechanical</b>	<b>13.38%</b>	<b>\$567,487.05</b>
Cooling Generating Systems		\$309,478.80
Domestic Water Dist		\$109,710.00
Plumbing Fixtures		\$148,298.25
<b>16 Electrical</b>	<b>7.98%</b>	<b>\$338,193.73</b>
Electrical Service & Distribution		\$335,669.48
Site Lighting		\$2,524.25
<b>19 FF&amp;E</b>	<b>4.95%</b>	<b>\$210,000.00</b>
Interior FF&E allowance		\$210,000.00
Total Raw Cost	100.00%	\$4,240,125.93

#### **Additional Hard Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$23,320.69
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$424,012.59
<b>Total Additional Hard Cost</b>		<b>\$447,333.29</b>

#### **Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$234,372.96
SIOH Conus	6.50%	\$319,919.09
Design	10.00%	\$468,745.92
08 MYr Inflation Fct	9.93%	\$567,052.37
<b>Total Soft Cost</b>		<b>\$1,590,090.35</b>
<b>Total Project Cost for Replacement</b>		<b>\$6,277,549.57</b>

**INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE**

**INSERT LODGING MASTER PLAN DRAWING HERE**



**INSERT PROPOSED LODGING FACILITY DRAWING HERE**

## Section 3 Demand Analysis

### Overview

---

The United States Military Academy (USMA) at West Point is located approximately 50 miles north of New York City on the Hudson River. The mission of the Academy is to educate, train, and inspire the Corps of Cadets so that each graduate becomes a commissioned leader of character and vision.

The population at West Point decreased over the last five years from 11,043 in FY99; to 10,588 in FY02; and then to 10,066 in FY03. The installation expects the population to stabilize at a modestly lower level of 9,764 by FY07.

In FY03, West Point's lodging demand comprised 20% Temporary Duty (TDY) personnel, 31% Permanent Change of Station (PCS) personnel and 49% unofficial travelers. Unofficial demand is not used in the calculation of recommended room inventory.

Roughly half of TDY personnel attended classes and training activities that lasted 4 to 5 days; the remaining attended classes and training activities that lasted 25 to 30 days. The majority of PCS stays were 25 to 30 days.

The table below describes West Point's official demand population.

USMA West Point Official Market Demand Analysis		
	TDY	PCS
<b>Total Demand:</b>	20%	31%
<b>Market Segmentation:</b>		
Individuals	100%	< 10%
Families	0%	> 90%
<b>Average Length of Stay (Days):</b>		
14 days or less	50% (4 to 5 days)	10% (10 to 15 days)
More than 14 days	50% (25 to 30 days)	90% (25 to 30 days)

*Source: USMA West Point Lodging Administration, compiled by HVS International*

### On Post Inventory

---

West Point has 69 rooms in its lodging inventory.

## Demand and Utilization

### Data Summary

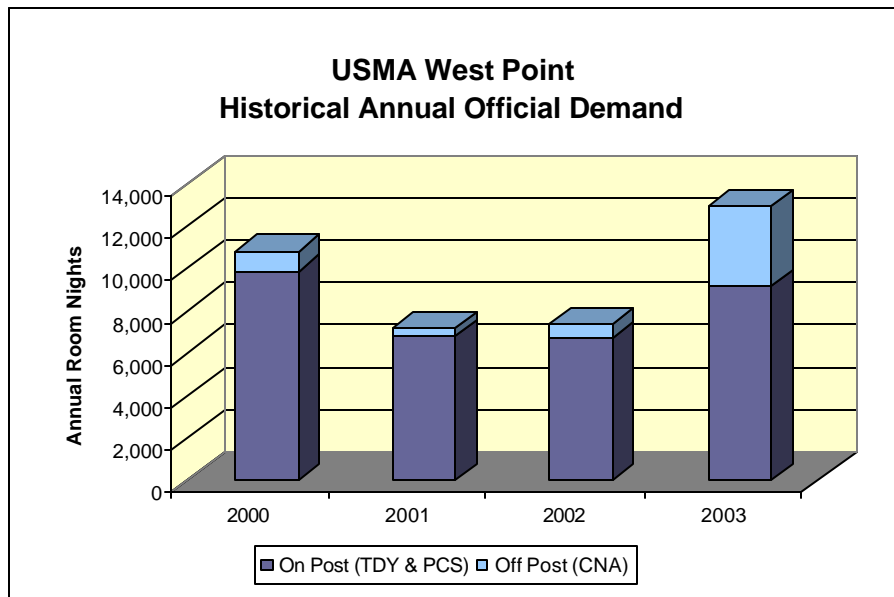
Official demand, including Certificates of Non-Availability (CNAs), totaled 12,944 room nights in FY03, an increase from 7,216 and 7,410 room nights registered in FY01 and FY02, respectively. In FY03, total official demand averaged 35.5 room nights per day.

TDY demand expanded consistently over the past four years, increasing from 1,419 room nights in FY00 to 3,573 room nights in FY03.

Conversely, PCS demand decreased from 8,506 room nights in FY00 to 5,615 room nights in FY03.

There were 884 and 391 CNAs reported for FY00 and FY01, followed by 733 CNAs reported for FY02. In FY03, CNAs increased to 3,756 room nights. The majority of the CNA increase occurred during the summer months due to faculty changeover.

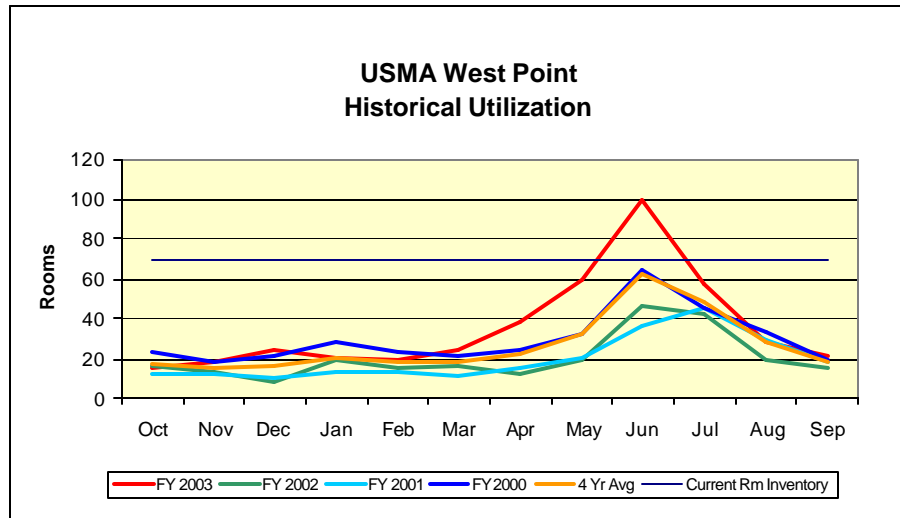
The following chart summarizes West Point's historical data; it identifies the annual official demand both on and off post.



Source: USMA West Point Lodging Administration, compiled by HVS International

Lodging occupancy at West Point increased from 58.6% in FY00 to 71.0% and 74.0% in FY02 and FY03, respectively. The increase in occupancy is attributed to an increase in TDY, PCS and unofficial activity at the installation.

The following chart summarizes West Point's historical utilization data by month.



Source: USMA West Point Lodging Administration, compiled by HVS International

Patterns from month to month remained relatively consistent over the past four years; peak demand occurred in June. Although a spike in summer demand occurred in FY03, the monthly pattern was similar to previous years.

### **Seasonality**

The records indicate distinct seasonality to West Point's lodging demand. Lodging Management reported that the increased PCS demand in May through July is due to faculty changeover.

### **Factors Influencing Demand**

West Point is scheduled to have three houses constructed by 2008, and a slight increase in PCS demand is expected to follow. This has been considered in our recommended room count.

Lodging management does not expect any other changes in mission, schedule or other factors that would have significant influence on lodging demand patterns.

## **Private Market Capability**

West Point is proximate to the Highland Falls private market lodging area, a small town which is roughly five minutes from the installation. However, the Highland Falls area offers limited accommodations;

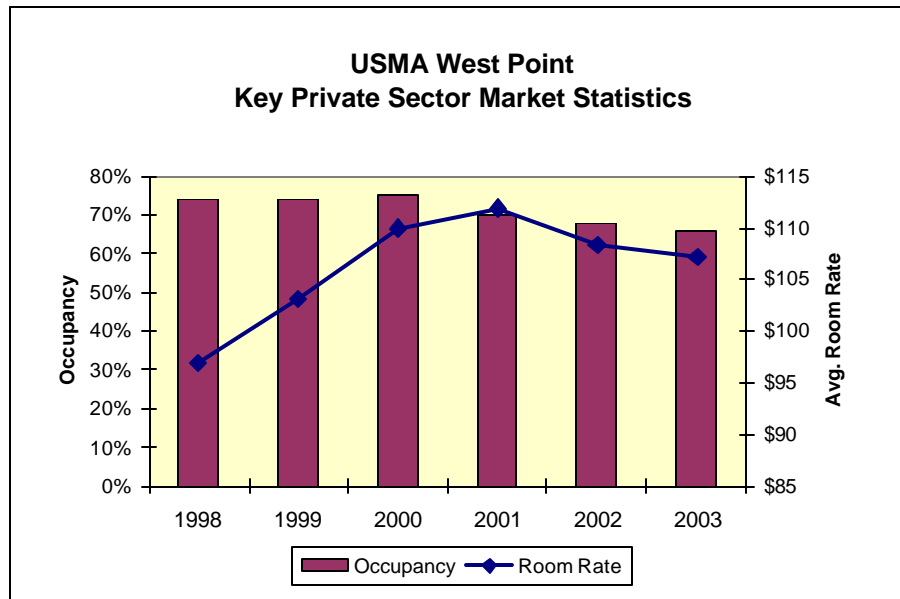
acceptable accommodations total three independent lodging facilities. The majority of the demand from the installation is referred to the Newburgh area, which is roughly thirty minutes from the installation. Hotels in these sub-markets range in size from 16 rooms to 444 rooms. The private market hotels represent a wide range of facilities affiliated with recognizable brand names; examples include Hampton Inn, Comfort Inn, and Holiday Inn.

Area occupancy levels in the private market fell from 75.2% in 2000 to 66.1% in 2003. The decline is consistent with the nationwide decline in travel. This pattern created additional capacity within the private market to house demand from the installation. Private market occupancy levels remain high in June, the peak demand month at West Point.

The room rates quoted by the hotels on the installation's referral list ranged from \$50 to \$120. The rounded, weighted average rate offered by these hotels to government travelers was \$89; this rate is readily available during the non-peak periods of the year when rooms are in ample supply. During the busier summer months, discounted government rates close out, and demand is accommodated only at the higher per diem of \$121.

Because of the readily available rooms at this lower rate during non-peak periods, our quantitative analysis uses a blended average room rate of \$105, which considers both the off-season and peak-season rate characteristics of this market. This rate position is also supported by the Smith Travel Research market data, which indicated a market-wide average near \$107.

The following chart describes key private market statistics.



Source: Smith Travel Research

## Demand Requirement Determination

Complete data pertaining to the last four years was available for West Point; therefore, we used this time frame as a basis for demand projections.

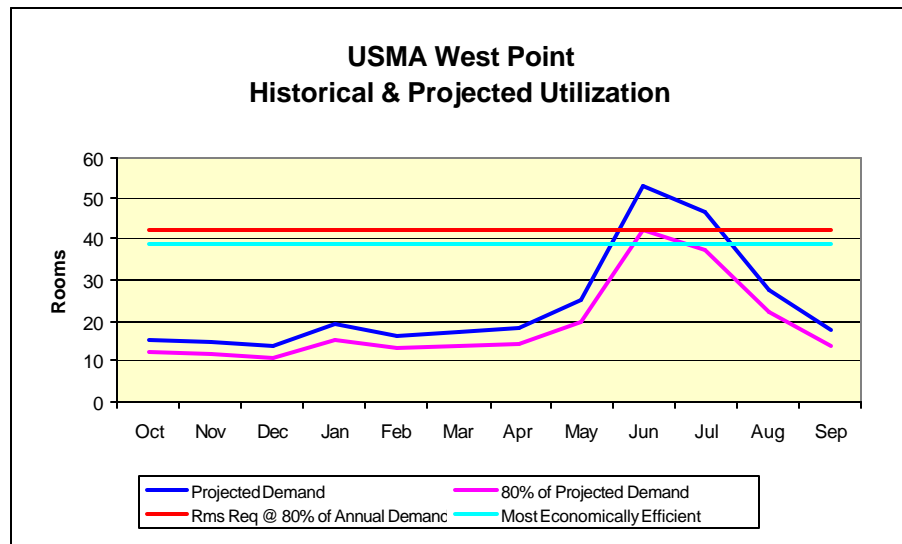
The normalization process eliminated monthly demand variances that were 20% greater or 20% less than average demand for FY00 through FY03. Variances greater or less than 20% of the average are atypical and unlikely to recur. For West Point, normalization resulted in increased demand in FY01 and FY02 by approximately 643 and 405 room nights, respectively. Normalization decreased demand in FY00 by 500 and FY03 by 3,263 room nights.

The Core Lodging Requirement objective is to provide sufficient lodging to meet 80% of the official demand. Using this criterion, the total number of rooms required on an annualized basis is 42, generating occupancy of 52%. As implied by the criterion, at least 80% of the official demand is met each month. On an annual basis, 93% of the official demand is met.

Another method to determine the number of rooms to be provided at the installation applies the “Most Economically Efficient” criterion. This measure compares the cost of having a vacant room to the incremental cost of lodging personnel off post. When the costs of these scenarios are at equilibrium, the most cost efficient number of rooms will be provided

from an operating cost perspective. The number of rooms required to achieve this equilibrium for West Point is 39. With a room inventory of 39, the expected occupancy is 55% and 91% of the official demand is met.

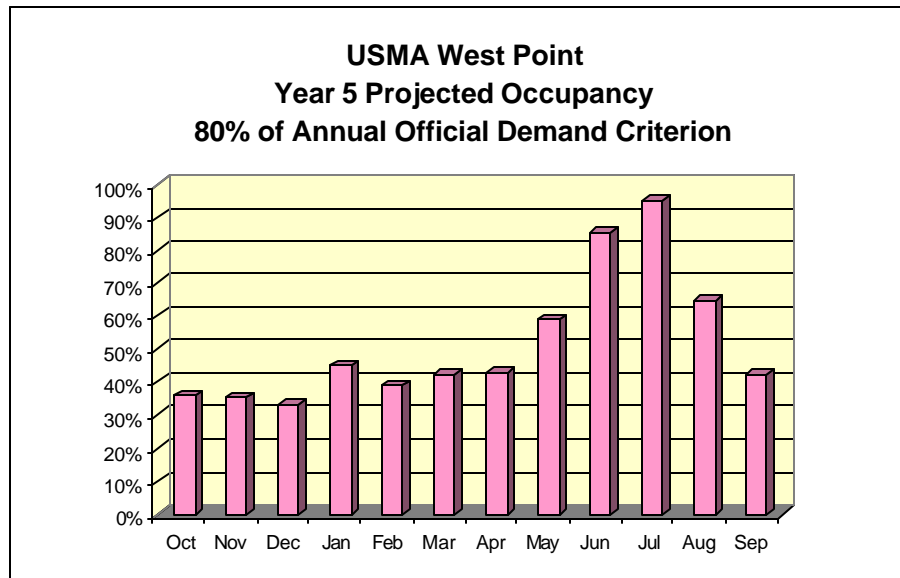
The chart below compares the alternatives of room inventory to projected demand.



Source: USMA West Point Lodging Administration and HVS International

Due to the heightened demand that occurs May through July, and the characteristics of the private market during this time, we recommend the number of rooms provided by the “80% of Annual Official Demand” criterion, or 42 units. West Point’s projected FY09 Average Daily Rate is \$59.99, based on projected operating costs and exclusive of Wellness recommended capital improvement costs.

The following chart presents the expected occupancy percentage on a monthly basis.



Source: HVS International

Using the “80% of Annual Official Demand” criterion, the average occupancy is 52% and 93% of the official demand is met. On a monthly basis, occupancy varies from a low of 33% in December to 95% in June and July.

## Summary and Recommendation

- West Point’s population decreased to just over 10,000 personnel in FY03; the installation has forecast a modest decline to a population near 9,800 by FY07
- The local private sector lodging market is reportedly stable and has the capacity to house personnel off-post; reported room rates (available in the off-season) are reasonable when compared to the per diem
- Official demand expanded considerably in FY03, after a two year decline
- There were 884 and 391 CNAs reported for FY00 and FY01. There were 733 CNAs reported for FY02. In FY03, CNAs expanded to 3,755 room nights, reportedly due to faculty changeover
- Providing a room inventory equal to the “80% of Annual Official Demand” criterion will generate an annual occupancy rate of 52%.



***Room Count and Mix Recommendation***

- 42 rooms
- Proposed room mix:
  - 12 standard guest rooms
  - 12 extended-stay guest rooms offering a kitchenette
  - 18 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette

### Section 4 Facility Assessment and Plans

Each Lodging facility is detailed in this section of the report. The outline of the detail is described below:

- **Summary of Existing Lodging Facility**
- **Significant Assumptions**, identifies criteria used for renovation / replacement cost models.
- **Cost Analysis**, summarizes recommendation based on cost.
- **Attributes**, describes number of rooms and configuration.
- **Condition Analysis and Recommendations** for each of the major systems of the building.
- **Major Functional Criteria Deficit**, describes any major Functional inadequacy based on Army standards.
- **Condition Assessment / Renovation / Replacement Analysis**
  - **Condition Assessment**, summarizes building system deficiencies grouped by CSI with additional hard cost and soft cost.
  - **Renovation**, summarizes building system costs plus functional renovation costs grouped by CSI with additional hard cost and soft cost.
  - **Replacement**, summarizes replacement cost grouped by CSI with additional hard cost and soft cost.



*Bldg 785  
Exterior View  
US Military Academy  
West Point, NY*

## **Building 0785**

---

Building 785, constructed in 1973, is a two-story brick structure housing 24 existing extended stay rooms and 11 family suites.. This building is in poor condition and does not provide appropriate support spaces. The cost to make condition assessment improvements will exceed 50% of the replacement cost.

Our recommendation is to remove building 785 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the USMA West Point Wellness Solution and Lodging Master Plan.

### **Significant Assumptions**

- The replacement cost model is based on 11 standard stay rooms, 12 extended stay rooms and 12 family suites.
- The upgrade renovation plan, if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.
- The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix
- All costs are adjusted by the Area Cost Factor of 115% for USMA West Point, NJ.

### **Cost Analysis**

• Condition Assessment Cost	\$2,244,989
• Replacement Cost	\$3,849,273
• Condition Assessment to Replacement Cost Ratio	58.32%

Because the Condition Assessment to Replacement Cost Ratio is greater than 50.00%, repair of Building 0785 is not recommended.



Bldg 785  
Interior Stairs  
US Military Academy  
West Point, NY

## Attributes

01.Number of Units Constructed	36
02.Number of Units Used	35
03.Main Lodging Facility	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	24
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	11
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	24
12.Operating as Family Suite	11
13.Renovated to Standard	11
14.Renovated to Extended Stay	12
15.Renovated to Family Suite	12
16.Delta renovation	0
17.Remove from Inventory	N/A
18.Upgrade Renv Cost Model Req	N/A
19.Renv Cost Model Req	N/A



Bldg 785  
Hallway  
US Military Academy  
West Point, NY

## Condition Analysis/Recommendation

### FF&E

#### FF&E Allowance

- Analysis: The hard goods consist of headboards, night stands, dresser, chair, couch, coffee table, and TV stands. This furniture is approximately two years old, showing some signs of wear, but generally appears to be in fair condition. The soft goods consist of drapes and blinds on the windows, TVs, mattresses and box springs, and bed coverings. These items also appear to be two years old and are in good condition.
- Recommendation: No corrective action required.

### Foundations

#### Standard Foundations

- Analysis: The foundation is composed of concrete beam and poured piers with a continuous concrete spread footing on compacted soil. No clear failures can be seen in the foundation and it is in good condition.
- Recommendation: No corrective action required.

#### Slab on Grade

- Analysis: The poured-in-place concrete slab on compacted soil with a small, poured-in-place concrete mechanical, electrical and storage room basement that is showing no signs of stress and is in good condition.
- Recommendation: No corrective action required.

### Superstructure

#### Floor Construction

- Analysis: The floor structure is slab on grade for the first floor and poured concrete on a steel deck supported by poured concrete columns for the second floor and is in good condition.
- Recommendation: No corrective action required.

#### Roof Construction

- Analysis: The original wood decking is attached to sloped wood rafters and is in good condition. The wood soffit is showing signs of failure and is in poor condition. The gutters are exterior to the roof with exposed downspouts appear to be original and in poor condition.
- Recommendation: Replace and repaint the soffit and replace the gutters and downspouts.

### Exterior Enclosure

#### Exterior Walls

- Analysis: The exterior wall construction is brick veneer and is in good condition.
- Recommendation: No corrective action required.



**Bldg 785**  
**Shower/Tub Fixtures and Ceramic**  
**Tile**  
**US Military Academy**  
**West Point, NY**

#### **Exterior Windows**

- Analysis: The original exterior windows are aluminum, single pane, not low E, double hung and are in poor condition.
- Recommendation: Replace the exterior windows.

#### **Exterior Doors**

- Analysis: The painted exterior steel doors, frames and hardware are in poor condition.
- Recommendation: Replace the exterior doors, frames and hardware.

#### **Roofing**

##### **Roof Coverings**

- Analysis: The building has a sloped roof with original asphalt shingles on a wood deck. The shingles are in poor condition.
- Recommendation: Replace the roof covering.

#### **Interior Construction**

##### **Partitions**

- Analysis: The partitions are painted drywall and are in good condition.
- Recommendation: No corrective action required.

##### **Interior Doors**

- Analysis: The interior doors are metal in metal frames. They are original and in poor condition.
- Recommendation: Replace the interior doors.

#### **Stairs**

##### **Stair Construction**

- Analysis: The exterior stairs are metal and are failing. The interior stairs are a combination of the original steel and concrete tread and a short flight of fire resistant wood replaced in 2001. The interior stairs are in good condition.
- Recommendation: Replace the exterior stairs.

#### **Interior Finishes**

##### **Wall Finishes**

- Analysis: The guest room interior walls are painted drywall without any vinyl wall covering and are in poor condition. The bathroom walls are ceramic tile and painted drywall and are in poor condition. The small lounge area, hallways, common, storage and back-of-house areas are painted drywall and are in poor condition.
- Recommendation: Install vinyl wall covering in the guest rooms, bathrooms, hallways, lounge, and common areas; replace the ceramic wall tile in the bathrooms and paint the back-of-house areas.

##### **Floor Finishes**

- Analysis: The floor finishes consist of carpet in the guest rooms, hallways, and lounge; ceramic tile in the bathrooms; and vinyl tile in the common and back-of-house areas and stairwells, and the stair treads have sheet vinyl. The carpet is in fair condition but will be beyond it's expected useful life in 2008. The vinyl tile flooring is in poor condition and will also be beyond it's expected useful life in 2008. The ceramic tile is in good condition.
- Recommendation: Replace the carpet and vinyl tile.

#### **Ceiling Finishes**

- Analysis: The ceilings are painted drywall in the guest rooms and acoustic ceiling tile in the hallways and common areas. All ceiling finishes are showing signs of premature failure and are in fair condition.
- Recommendation: Replace the acoustical ceiling tile and repaint the ceiling.

### **Conveying**

#### **Elevators and Lifts**

- Analysis: There is no elevator in this building.
- Recommendation: No corrective action required.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: The plumbing fixtures consist of chrome plated brass faucets for the lavatory, bathtub, and kitchen sink. The lavatory and bathtub fixtures appear original and the kitchen sinks fixtures are approximately ten years old. The lavatory and bathtub fixtures are in poor condition, while the kitchen sink fixtures are in good condition. The bathroom sinks, showers, and water closets appear original and are in poor condition. The stainless steel kitchen sink is in good condition.
- Recommendation: Replace the bathtub, bathroom sink and water closet and all fixtures.

#### **Domestic Water Distribution**

- Analysis: The domestic water is supplied through copper lines that are original and in poor condition. The waste lines are original cast iron piping and are in poor condition. Hot water is produced from the original gas fired boiler configuration and stored in two new 120 gallon, commercial hot water storage tanks. The hot water storage tanks are in good condition while the boilers are in poor condition.
- Recommendation: Replace the domestic water system.

### **HVAC**

#### **Cooling Generating Systems**

- Analysis: Heating is supplied by the original gas fired boiler configuration that delivers hydronic heating through wall mounted radiator units. Each room has a heat tempature control unit. The heating system is original. Cooling is supplied by window air conditioner units. The local staff indicated the window air conditioning units are about two years old. However, all window units appear to be in poor condition.

- Recommendation: Replace the hydronic heating system and window air conditioning units with PTAC units having auxiliary heating elements.

## **Fire Protection**

### **Sprinklers**

- Analysis: The fire sprinkler system installed in this building in 2001 is in good condition. The kitchens do not have fire suppression for the stoves.
- Recommendation: Install fire suppression in the kitchens.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is supplied from a pad mounted transformer supplying 120/208 volt, three phase power to the four original 400 amp main distribution panels located in the basement level electrical equipment room. There is no main switchboard in this facility. The four panels provided power to all lights and outlets in the building. The four panels provided power to all lights and outlets in the building. The original main panels, branch wiring, switches, outlets and fixtures are in poor condition and inadequate for the current load. The light fixtures appear to be original and in poor condition. The exit and emergency lighting is original and in poor condition. The entire electrical system is in overall poor condition.
- Recommendation: Replace the entire electrical and lighting system.

### **Communications and Security**

- Analysis: The fire alarm system was installed in 2001 and consists of smoke detectors in each room and horns and strobes in the rooms, hallways and common areas. The system is in good condition.
- Recommendation: No corrective action required.

## **Equipment**

### **Other Equipment**

- Analysis: The commercial equipment consists of washers and dryers for the lodging and guest laundry and a commercial ice maker. All are in good condition.
- Recommendation: No corrective action required.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site consists of steeply slopped grassy areas framed by sidewalks, with shrubs and trees and is in good condition.
- Recommendation: No corrective action required.

## **Site Improvements**

### **Parking Lots**

- Analysis: The parking lot and entrance driveway appear to be original and in poor condition.
- Recommendation: Resurface the parking lot and driveway.



## Site Electrical Utilities

### Site Lighting

- Analysis: The parking areas and walkways have pole mounted mercury vapor lights and the building has mercury vapor wall packs. Site lighting appears to be original and in poor condition.
- Recommendation: Replace all site lighting.



Bldg 785  
Guest Room  
US Military Academy  
West Point, NY

## Major Functional Criteria

### CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

#### Back of the House Spaces

- **Accessible Staff Toilets**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Break Room**  
Breakfast Area is used as a Break Room after breakfast hours, which does not meet Functional Criteria. Breakfast Area is not required in a secondary facility, however space is oversized for a Break Room. Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Dirty / Clean Linen Storage**  
Housekeeping supplies are colocated in the same room.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Housekeeping Rooms**  
Function is colocated with Dirty/Clean Linen Storage. Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Janitor Closet**  
Exists, is not required based on Functional Criteria. Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Utility Rooms  
(Mech/Elec/Data/Comm/Switch/Elevator  
Equipment Rooms)**  
Meets majority of Functional Criteria.  
Renovation not required.

#### Guest Rooms

- **Extended Stay Rooms**  
Meets majority of functional criteria, although room is slightly oversized at approx. 340 s.f., standard is 300 s.f.  
Renovation not required.

- **Family Suites**  
Meets majority of functional criteria.  
Renovation not required.

#### **Public Spaces**

- **Bell Cart Station**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Breakfast Bar**  
Exists, in not required in a secondary facility.  
Renovation not required, facility will be replaced as part of the Wellness Recommendation.
- **Guest Bulk Storage**  
Storage is located in the basement.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Guest Laundry Area**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Public Corridors**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Public Telephone Area**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Stairs**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Vending**  
Exists in Lobby, which does not meet Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Vestibule**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

#### **Site**

- **Community Planning**  
The existing Lodging campus mass and scale blends with surrounding architecture, but does not provide visual interest. The existing Lodging building is located within a well defined campus area and close to community facilities.
- **Force Protection**

The existing Lodging facility siting does not consider force protection setback constraints from existing roads and parking. Roads and parking are constructed adjacent to the existing Lodging buildings, within force protection setback constraints.

- **Site Amenities**

The existing Lodging facility is not part of an existing cohesive Lodging campus, but includes most required site amenities including a well equipped playground.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>3.43%</b>	<b>\$45,724.00</b>
Beyond Useful Life		\$45,724.00
<b>05 Metals</b>	<b>0.91%</b>	<b>\$12,132.50</b>
Exterior Stairs: Damaged or Failing		\$12,132.50
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.07%</b>	<b>\$67,581.86</b>
Asphalt Shingle Roof: Beyond Useful Life		\$55,194.94
Downspouts: Damaged or Failing		\$1,011.08
Gutters: Damaged or Failing		\$8,059.20
Soffit: Damaged or failing		\$3,316.64
<b>08 Doors &amp; Windows</b>	<b>11.89%</b>	<b>\$158,483.16</b>
Al. Windows - Beyond Useful Life		\$71,563.86
Exterior Steel Door - Damaged or Failing		\$12,663.71
Interior Steel Door - Beyond expected useful life		\$74,255.59
<b>09 Finishes</b>	<b>12.58%</b>	<b>\$167,707.19</b>
Acoustical Ceiling Tile: Beyond expect useful life		\$8,206.20
Carpet: Beyond Useful Life		\$52,667.05
Exterior Surfaces: Paint Failing		\$1,019.30
Interior ceilings: Paint Failing		\$10,478.09
Interior walls: Paint failing		\$358.25
VCT: Beyond Useful Life		\$1,546.60
Vinyl Wall Covering: Missing or inadequate		\$88,823.88
Wall Tile: Damaged or Failing		\$4,607.82
<b>13 Special Construction</b>	<b>1.51%</b>	<b>\$20,125.00</b>
CO2 System: Missing or Inadequate		\$20,125.00
<b>15 Mechanical</b>	<b>40.05%</b>	<b>\$533,853.35</b>
Bath tub: Replace due to remodel		\$61,961.77
Boiler: Beyond expected useful life		\$95,933.00
Domestic water system: Beyond expected useful life		\$51,497.76
Hydronic heating system: Beyond expt useful life		\$18,584.23
Kitchen exhaust: Damaged or failing		\$42,495.25
Pipe, sewer or waste: Beyond expected useful life		\$24,709.15
PTAC: Missing or inadequate		\$97,439.04
Restroom exhaust: Missing or inadequate		\$68,220.11
Sink & vanity: Replace due to remodel		\$31,989.78
Water closet: Replace due to remodel		\$41,023.26
<b>16 Electrical</b>	<b>24.55%</b>	<b>\$327,289.43</b>
Branch Circuits: Beyond Expected Useful Life		\$69,997.63
Emergency light: Beyond expected useful life		\$4,618.40
Fixture: Incandescent: Beyond expected useful life		\$92,586.50
Inadequate exterior Lighting		\$66,930.00
Main service: Missing or inadequate		\$93,156.90
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,332,896.49</b>

**Additional Hard Cost (Template: Army Lodging Renovation)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$7,330.93
Force Protection	9.00%	\$132,616.54
General Conditions	10.00%	\$133,289.65
<b>Total Additional Hard Cost</b>		<b>\$273,237.12</b>

**Soft Cost (Template: Army Lodging Renovation)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	10.00%	\$160,613.36
SIOH Conus	6.50%	\$114,838.55
Design	10.00%	\$160,613.36
08 MYr Inflation Fct	9.93%	\$202,790.35
<b>Total Soft Cost</b>		<b>\$638,855.62</b>
<b>Total Project</b>		<b>\$2,244,989.23</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>4.20%</b>	<b>\$109,103.81</b>
Parking Lots		\$34,086.00
Site Earthwork		\$75,017.81
<b>03 Concrete</b>	<b>16.22%</b>	<b>\$421,762.44</b>
Floor Construction		\$246,801.44
Slab on Grade		\$55,504.75
Stair Construction		\$8,452.50
Standard Foundations		\$111,003.75
<b>04 Masonry</b>	<b>5.70%</b>	<b>\$148,117.57</b>
Exterior Walls		\$148,117.57
<b>07 Thermal &amp; Moisture Protection</b>	<b>7.67%</b>	<b>\$199,331.54</b>
Roof Construction		\$62,562.42
Roof Coverings		\$136,769.12
<b>08 Doors &amp; Windows</b>	<b>9.07%</b>	<b>\$235,928.25</b>
Exterior Doors		\$11,298.75
Exterior Windows		\$179,400.00
Interior Doors		\$45,229.50
<b>09 Finishes</b>	<b>14.60%</b>	<b>\$379,538.38</b>
Ceiling Finishes		\$58,166.66
Floor Finishes		\$128,813.89
Partitions		\$106,529.42
Wall Finishes		\$86,028.42
<b>11 Equipment</b>	<b>3.72%</b>	<b>\$96,600.00</b>
Other Equipment		\$96,600.00
<b>13 Special Construction</b>	<b>5.14%</b>	<b>\$133,648.52</b>
Communications & Security		\$60,164.03
Sprinklers		\$73,484.48
<b>14 Conveying Systems</b>	<b>4.75%</b>	<b>\$123,510.00</b>
Elevators and Lifts		\$123,510.00
<b>15 Mechanical</b>	<b>14.68%</b>	<b>\$381,627.50</b>
Cooling Generating Systems		\$177,606.00
Domestic Water Dist		\$84,870.00
Plumbing Fixtures		\$119,151.50
<b>16 Electrical</b>	<b>7.53%</b>	<b>\$195,796.13</b>
Electrical Service & Distribution		\$193,271.88
Site Lighting		\$2,524.25
<b>19 FF&amp;E</b>	<b>6.73%</b>	<b>\$175,000.00</b>
Interior FF&E allowance		\$175,000.00
Total Raw Cost	100.00%	\$2,599,964.14

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$14,299.80
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$259,996.41

<b>Total Additional Hard Cost</b>	<b>\$274,296.22</b>
-----------------------------------	---------------------

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$143,713.02
SIOH Conus	6.50%	\$196,168.27
Design	10.00%	\$287,426.04
08 MYr Inflation Fct	9.93%	\$347,705.67
<b>Total Soft Cost</b>		<b>\$975,012.99</b>
<b>Total Project Cost for Replacement</b>		<b>\$3,849,273.35</b>

**INSERT BUILDING 785 FLOOR PLANS HERE**





*Bldg 2113  
Main Lodging Exterior View  
US Military Academy  
West Point, NY*

## **Building 2113**

---

Building 2113, constructed in 1948, is a historical four-story brick structure housing 31 family suites and 3 single rooms. This facility is located outside of the gated area of the main campus. Although this facility was renovated within the last 5 years, the major building systems need replacement and the facility does not meet Lodging standards and cannot be reconfigured without significant reconstruction. Although the cost to make condition assessment improvements is just over 50% of the replacement cost, it is our recommendation to remove this facility from Lodging inventory due to the age of the building.

It should be noted that this structure may be historic and some Army Lodging functional requirements indicated in the report would require clearance from SHPO or through Army Alternate Procedures; therefore, some of the requirements may need modification, in which case the prices for implementation may vary from the cost models applied.

Our recommendation is to remove building 2113 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the USMA West Point Wellness Solution and Lodging Master Plan.

## **Significant Assumptions**

- The replacement cost model is based on 12 standard stay rooms, 12 extended stay rooms and 18 family suites.
- The upgrade renovation plan, if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.
- The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix
- All costs are adjusted by the Area Cost Factor of 115% for USMA West Point, NJ.

## Cost Analysis

• Condition Assessment Cost	\$3,369,726
• Replacement Cost	\$6,330,759
• Condition Assessment to Replacement Cost Ratio	53.23%

Because the Condition Assessment to Replacement Cost Ratio is greater than 50.00%, repair of Building 2113 is not recommended.



Bldg 2113  
Elevator  
US Military Academy  
West Point, NY

## Attributes

01.Number of Units Constructed	34
02.Number of Units Used	34
03.Main Lodging Facility	Yes
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	34
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	3
12.Operating as Family Suite	31
13.Renovated to Standard	12
14.Renovated to Extended Stay	12
15.Renovated to Family Suite	18
16.Delta renovation	8
17.Remove from Inventory	N/A
18.Upgrade Renv Cost Model Req	N/A
19.Renv Cost Model Req	N/A



Bldg 2113  
Hotel Lobby  
US Military Academy  
West Point, NY

## Condition Analysis/Recommendation

### FF&E

#### FF&E Allowance

- Analysis: The hard goods consist of headboards, night stands, dresser, chair, couch, coffee table, and TV stands. This furniture was replaced in February 2004 and is in new condition. The soft goods consist of drapes and blinds on the windows, TVs, mattresses and box springs, and bed coverings. These items also were replaced in February 2004.

- Recommendation: No corrective action required.

### Foundations

#### Standard Foundations

- Analysis: The foundation is composed of concrete beam and poured piers with a continuous concrete spread footing on compacted soil. No clear failures can be seen in the foundation and it is in good condition.

- Recommendation: No corrective action required.

#### Slab on Grade

- Analysis: The poured-in-place concrete slab on compacted soil with a poured-in-place mechanical basement and a poured-in-place electrical vault is showing no signs of stress and is in good condition.

- Recommendation: No corrective action required.

### Superstructure

#### Floor Construction

- Analysis: The floor structure is slab on grade for the first floor and poured concrete on a steel deck supported by poured concrete columns for the second, third and fourth floors and is in good condition.

- Recommendation: No corrective action required.

#### Roof Construction

- Analysis: The roof structure is a flat reinforced concrete slab and is in good condition.

- Recommendation: No corrective action required.

### Exterior Enclosure

#### Exterior Walls

- Analysis: The exterior wall construction is concrete masonry units with brick veneer and is in good condition.

- Recommendation: No corrective action required.

#### Exterior Windows

- Analysis: The original exterior windows are aluminum, single pane, not low E, double hung and are in poor condition.

- Recommendation: Replace the exterior windows.



**Bldg 2113**  
**Hallway**  
**US Military Academy**  
**West Point, NY**

### **Exterior Doors**

- Analysis: The painted exterior steel doors, frames and hardware, and the aluminum storefront are in poor condition.
- Recommendation: Replace the aluminum storefront and exterior steel doors, frames and hardware.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof covering is a built-up system with gravel rock ballast and is in poor condition. The counter flashings are aluminum and in poor condition.
- Recommendation: Replace the roof covering.

### **Interior Construction**

#### **Partitions**

- Analysis: The partitions are painted drywall on CMU and are in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The interior doors are metal in metal frames and are original. All are in poor condition.
- Recommendation: Replace the metal frames, doors and hardware.

### **Stairs**

#### **Stair Construction**

- Analysis: There are no exterior stairs. The interior stairs are original, show no signs of failure, and are in good condition.
- Recommendation: No corrective action required.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The guest room interior walls are painted drywall without any vinyl wall covering and are in poor condition. The bathroom walls are ceramic tile and painted drywall and are in poor condition. The lobby and registration areas and the hallways have vinyl wall covering and are in good condition. The administrative, back-of-house, and storage areas are painted drywall and are in poor condition.
- Recommendation: Install vinyl wall covering and replace the ceramic wall tile in the guest rooms and bathrooms; and paint the administrative, back-of-house and storage areas.

#### **Floor Finishes**

- Analysis: The floor finishes consist of carpet in the guest rooms, hallways, and offices and ceramic tile in the bathrooms; stone flooring in the lobby, reception and building entrance areas; vinyl tile in the common and back-of-house areas and stairwells, and the stair treads have sheet vinyl. All flooring, except the vinyl tile, is in good condition. The vinyl tile is in poor condition.
- Recommendation: Replace the vinyl tile flooring.

### **Ceiling Finishes**

- Analysis: The guest room ceilings are painted drywall and are in good condition. The hallways and common areas are acoustic ceiling tile and are in good condition. The back-of-house areas are painted drywall and are in poor condition.
- Recommendation: Paint the back-of-house area ceilings.

### **Conveying**

#### **Elevators and Lifts**

- Analysis: The building has an elevator that services the second, third and fourth floors. The elevator is in operational condition but is beyond its expected useful life.
- Recommendation: Replace the existing elevator that services all floors.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: The plumbing fixtures consist of chrome plated brass faucets for the lavatory, bathtub, and kitchen sink. They were installed in the 1980's and are in poor condition. The sinks, showers, and water closets were also replaced in 1980's and are in poor condition.
- Recommendation: Replace all plumbing fixtures.

#### **Domestic Water Distribution**

- Analysis: The domestic water is supplied through copper lines that are a combination of original lines and lines installed in the renovation that occurred in approximately 1969. The domestic water lines are in poor condition. The waste lines are a combination of the original cast iron piping and cast iron and PVC piping also installed in the same 1969 renovation. The waste lines are in poor condition. The hot water is produced from the original boiler that was converted from oil to gas fired and stored in ten year old 120 gallon, commercial hot water storage tanks. The hot water storage tanks are in good condition while the boiler is in poor condition.
- Recommendation: Replace the entire domestic water system.

### **HVAC**

#### **Cooling Generating Systems**

- Analysis: Heating is supplied by the original oil fired hot water boiler that was converted to a gas fired system. Hydronic heating is delivered throughout the facility through floor level, wall mounted radiator units. Each room has a heat temperature control unit. The heating system appears to be original. Cooling is supplied by window air conditioner units. The local staff indicated the window air conditioning units are about two years old. However, the window units appear to be in poor condition.
- Recommendation: Replace the hydronic heating system and window air conditioning units with PTAC having auxiliary heating elements.

## **Fire Protection**

### **Sprinklers**

- Analysis: The fire sprinkler system installed in this building in 2001 is in good condition. The kitchens do not have fire suppression for the stoves.
- Recommendation: Install fire suppression in the kitchens.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is supplied from a vault mounted transformer supplying 120/208 volt, three phase power to the original 1200 amp main switchboard. Distribution panels are located throughout the building and consist of new panels and branch wiring combined with the original panels and branch wiring on each floor. These panels provided power to all lights and outlets in the building. The new panels, branch wiring, switches, outlets and fixtures are in good condition. The original switchboard, panels, branch wiring, switches, outlets and fixtures are in poor condition and appears inadequate for the current load. The lighting system is original and a combination of upgrades occurring in the late 1960's, late 1980's, and a partial upgrade in 2001. Lighting is in poor condition. The exit and emergency lighting is in good condition. Overall, the entire electrical and lighting system is in poor condition.
- Recommendation: Replace the entire electrical and lighting system.

### **Communications and Security**

- Analysis: The fire alarm system was installed in 2001 and consists of smoke detectors in each room and horns and strobes in the rooms, hallways and common areas. The system is in good condition.
- Recommendation: No corrective action required.

## **Equipment**

### **Commercial Equipment**

- Analysis: The commercial equipment consists of washers and dryers for the lodging and guest laundry and a commercial ice maker. All are in good condition.
- Recommendation: No corrective action required.

### **Other Equipment**

- Analysis: There is a stove with hood, micro-fridge and microwave in each guest room and all are in good condition.
- Recommendation: No corrective action required.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site consists of grassy areas framed by sidewalks, shrubs and trees and is in good condition.
- Recommendation: No corrective action required.

## Site Improvements

### Parking Lots

- Analysis: The parking lot appears to be original and is in good condition.
- Recommendation: No corrective action required.

## Site Electrical Utilities

### Site Lighting

- Analysis: The parking areas and walkways have pole mounted mercury vapor lights and the building has mercury vapor wall packs. Site lighting is in good condition.
- Recommendation: No corrective action required.



Bldg 2113  
Guest Room Furniture  
US Military Academy  
West Point, NY

## Major Functional Criteria

### CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

#### Back of the House Spaces

- **Accessible Staff Toilets**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Administration Conference Room**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Administration Offices**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Assistant Manager Offices**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Break Room**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Bulk Storage Area**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Cash Room**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

- **Front Office Manager**  
Meets majority of Functional Criteria.  
Renovation not required.
- **General Storage Area**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Housekeeping Office**  
This room is shared as a Housekeeping Room.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Housekeeping Rooms**  
This function is located in the Housekeeping Office.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **In-House Laundry Area**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Janitor Closet**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Kitchen Preparation Area**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Luggage Storage**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Maintenance Area**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Manager's Office**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Receiving**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Receiving Office**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.



- **Service Corridors**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Utility Rooms (Mech/Elec/Data/Comm/Switch/Elevator Equipment Rooms)**  
Meets majority of Functional Criteria.  
Renovation not required.

#### **Guest Rooms**

- **Extended Stay Rooms**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Family Suites**  
Family Suites have been created using two standard rooms with a connecting door. Room is approximately 600 s.f.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

#### **Public Spaces**

- **Accessible Public Toilets**  
Exists, does not meet Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Bell Cart Station**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Breakfast Bar**  
Breakfast area is in Lobby, but the space is undersized for these two functions.  
Renovation not required.
- **Front Desk**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Guest Bulk Storage**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Guest Laundry Area**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Lobby**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Multi Purpose Area**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

- **Passenger Elevators**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Public Corridors**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Public Telephone Area**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Stairs**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Vending**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Vestibule**  
Meets majority of Functional Criteria.  
Renovation not required.

#### **Site**

- **Community Planning**  
The existing Lodging building is sited off the main campus, away from the community area. The existing Lodging campus does not blend with the surrounding historic architecture and does not provide visual interest.
- **Force Protection**  
The existing Lodging facility siting does not consider force protection setback constraints from existing roads and parking and unobstructed space requirements. Roads and parking are constructed adjacent to the existing Lodging buildings, within force protection setback constraints.
- **Site Amenities**  
The exterior common areas do not meet Lodging standards. Required exterior common areas and site amenities do not exist. Landscape and site work is in fair condition.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>6.37%</b>	<b>\$127,504.24</b>
Built-up Roof: Beyond Useful Life		\$127,504.24
<b>08 Doors &amp; Windows</b>	<b>17.03%</b>	<b>\$340,672.61</b>
Al. Windows - Beyond Useful Life		\$160,801.37
Exterior Steel Door - Beyond expected useful life		\$7,598.22
Interior Steel Door - Beyond expected useful life		\$166,191.07
Storefront - Damaged or Failing		\$6,081.95
<b>09 Finishes</b>	<b>10.38%</b>	<b>\$207,751.15</b>
Interior ceilings: Paint Failing		\$5,123.35
Interior walls: Paint failing		\$5,210.88
VCT: Beyond Useful Life		\$40,754.73
Vinyl Wall Covering: Missing or inadequate		\$135,773.41
Wall Tile: Damaged or Failing		\$20,888.78
<b>12 Furnishings</b>	<b>0.28%</b>	<b>\$5,566.58</b>
Front Desk: Beyond expected useful life		\$5,566.58
<b>13 Special Construction</b>	<b>1.38%</b>	<b>\$27,600.00</b>
CO2 System: Missing or Inadequate		\$27,600.00
<b>14 Conveying Systems</b>	<b>6.35%</b>	<b>\$127,138.25</b>
Elevator: Beyond expected useful life		\$127,138.25
<b>15 Mechanical</b>	<b>37.65%</b>	<b>\$753,243.32</b>
Bath tub: Replace due to remodel		\$76,541.01
Boiler: Beyond expected useful life		\$95,933.00
Domestic water system: Beyond expected useful life		\$95,299.80
Hot water storage tank: Beyond expected useful life		\$3,848.19
Hydronic heating system: Beyond expt useful life		\$37,839.03
Kitchen exhaust: Damaged or failing		\$43,709.40
Pipe, sewer or waste: Beyond expected useful life		\$45,725.23
PTAC: Missing or inadequate		\$168,488.34
Restroom exhaust: Missing or inadequate		\$88,508.60
Sink & vanity: Replace due to remodel		\$42,653.04
Water closet: Replace due to remodel		\$54,697.68
<b>16 Electrical</b>	<b>20.55%</b>	<b>\$411,199.81</b>
Branch Circuits: Beyond Expected Useful Life		\$129,529.16
Fixture: Incandescent: Beyond expected useful life		\$188,513.75
Main service: Beyond expected useful life		\$93,156.90
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$2,000,675.96</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,003.72
Force Protection	9.00%	\$199,057.25
General Conditions	10.00%	\$200,067.60

<b>Total Additional Hard Cost</b>	<b>\$410,128.57</b>
-----------------------------------	---------------------

**Soft Cost (Template: Army Lodging Renovation)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	10.00%	\$241,080.45
SIOH Conus	6.50%	\$172,372.52
Design	10.00%	\$241,080.45
08 MYr Inflation Fct	9.93%	\$304,388.06
<b>Total Soft Cost</b>		<b>\$958,921.49</b>
<b>Total Project</b>		<b>\$3,369,726.02</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>2.33%</b>	<b>\$99,596.61</b>
Parking Lots		\$41,078.00
Site Earthwork		\$58,518.61
<b>03 Concrete</b>	<b>22.32%</b>	<b>\$954,628.98</b>
Floor Construction		\$729,775.23
Slab on Grade		\$43,280.25
Stair Construction		\$8,452.50
Standard Foundations		\$173,121.00
<b>04 Masonry</b>	<b>4.75%</b>	<b>\$203,074.57</b>
Exterior Walls		\$203,074.57
<b>07 Thermal &amp; Moisture Protection</b>	<b>4.77%</b>	<b>\$203,874.56</b>
Roof Construction		\$97,043.86
Roof Coverings		\$106,830.70
<b>08 Doors &amp; Windows</b>	<b>7.70%</b>	<b>\$329,140.35</b>
Exterior Doors		\$24,714.65
Exterior Windows		\$239,200.00
Interior Doors		\$65,225.70
<b>09 Finishes</b>	<b>19.57%</b>	<b>\$836,707.84</b>
Ceiling Finishes		\$275,108.26
Floor Finishes		\$272,096.11
Partitions		\$164,219.72
Wall Finishes		\$125,283.76
<b>11 Equipment</b>	<b>3.28%</b>	<b>\$140,339.68</b>
Commercial Equipment		\$17,393.75
Other Equipment		\$122,945.93
<b>13 Special Construction</b>	<b>4.87%</b>	<b>\$208,437.68</b>
Communications & Security		\$93,831.58
Sprinklers		\$114,606.10
<b>14 Conveying Systems</b>	<b>5.78%</b>	<b>\$247,020.00</b>
Elevators and Lifts		\$247,020.00
<b>15 Mechanical</b>	<b>12.51%</b>	<b>\$535,001.85</b>
Cooling Generating Systems		\$276,993.60
Domestic Water Dist		\$109,710.00
Plumbing Fixtures		\$148,298.25
<b>16 Electrical</b>	<b>7.21%</b>	<b>\$308,243.70</b>
Electrical Service & Distribution		\$305,719.45
Site Lighting		\$2,524.25
<b>19 FF&amp;E</b>	<b>4.91%</b>	<b>\$210,000.00</b>
Interior FF&E allowance		\$210,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$4,276,065.83</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$23,518.36
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$427,606.58

*Building 2113*

<b>Total Additional Hard Cost</b>	<b>\$451,124.95</b>
-----------------------------------	---------------------

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$236,359.54
SIOH Conus	6.50%	\$322,630.77
Design	10.00%	\$472,719.08
08 MYr Inflation Fct	9.93%	\$571,858.79
<b>Total Soft Cost</b>		<b>\$1,603,568.17</b>
<b>Total Project Cost for Replacement</b>		<b>\$6,330,758.95</b>

**INSERT BUILDING 2113 FLOOR PLANS HERE**

## AREAS AND OCCUPANCY SPREADSHEET TEMPLATE - Phase IV

[illegible]



## AREAS AND OCCUPANCY SPREADSHEET TEMPLATE - Phase IV

ROOM / SPACE	2-4 Units	5-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Lodging Facility on Install. Only	Note
	Note: Space requirements based on number of units in building for all non-Main Lodging Facility requirements, and number of units on the installation for Main Lodging Facility Requirements											
Back-of-House Areas												
Manager's Office	180	180	180	180	180	180	180	180	180	180	X	
Assist. Mgr. Off.	0	0	0	0 50-99 units 120 100-149 units	120	120	120	120	120	120	X	
Front Office Mgr.			100	100	100	100	100	100	100	100	X	
Admin. Offices		1 space / 100-125 s.f.	2 space / 200-250 s.f.	2 spaces / 200-250 s.f.	2 spaces / 200-250 s.f.	5 spaces / 500-600 s.f.	5 spaces / 500-600 s.f.	7 spaces / 800-900 s.f.	7 spaces / 800-900 s.f.	10 spaces / 1,100-1,200 s.f.	X	
Cash Room			50	75	75	100	100	125	125	150	X	
Luggage Storage	0	0	0	75	75	100	100	100	100	100	X	
Admin. Conf. Rm.			250	250	250	350	350	350	350	350	X	
Housekeeping Off.			120	120	120	120	120	120	120	120	X	
Dirty/Clean Linen Stor.	Incorporated in Housekeep.	Incorporated in Housekeep.	50	50	50	100	100	200	200	400	See Note	At all facilities w/out in-house laundry
In-House Laundry	Guest Laundry used for this function	Guest Laundry used for this function	500	500	500	500	500	750	750	900	X	CFSC requirement min 500 s.f
Receiving Office			75	75	75	75	75	75	75	75	X	
Maintenance Area			100	175	175	250	250	400	400	600	X	
Kitchen Prep Room			150	150	150	150	150	150	150	150	X	facility, if it is a remote location.
Break Room			140	210	210	280	280	350	350	420		
Staff Toilet - Men				100	100	100	100	150	150	200		
Staff Toilet - Women			100	100	100	150	150	200	200	250		
Access Corridor			At main Lodging facilities only	**	**	**	**	**	**	**		
Receiving		75	150	150	150	150	150	150	150	200	X	
Housekeep. Rms.	128	128	128-512	512-1280	1280-1792	1792-2560	2560-3456	3456-5120	5120-6912	6912+		128 s.f. for each 15 guest rooms
Service Elevator at New Buildings			Only if 3 stories or more	1 @ 80 s.f. 100-149 rooms, Or if 3 stories or more	80	80	80	80	80	80		
Service Elevator at Existing Buildings					80	80	80	80	80	80		
Data/Commo Rm.	20	50	100	100	100	150	150	150	150	150		
Switch Closets	Incorporated in Data/Com *	Incorporated in Data/Com *	16 *	16-48 *	48-64 *	64-96 *	96-128 *	128-144 *	144-256 *	256+ *		1 closet of 16 s.f. for approximately 50 guest rooms
Janitor Closet	Incorporated in Housekeep.	Incorporated in Housekeep.	50	50	50	50	50	50	50	50	X	Only at first floor of Main Lodging facility.
Mechanical Room	*	*	*	*	*	*	*	*	*	*		
General Stor. Rm.	100	100	500	500	500	500	500	500	500	500	X	
Bulk Storage Rm.	Incorporated in General Stor.	Incorporated in General Stor.	500	500	500	500	500	500	500	500	X	
Electrical Room	Incorporated in Data/Com *	50 *	140 *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *		One electrical room to serve no more than 100 rooms.
Elevator Equip.Rm.			84	84	84	84	84	84	84	84		
EXTERIOR												
Playground (Outdoor)											X	Play ground required at facilities with family stays.
Grounds Maintenance	400	400	400	400	400	400	400	400	400	400	X	

\* Mechanical/electrical/equipment Spaces to be determined by contractor based on appropriate code and recommended systems.

\*\* Corridors to be determined based on building layout.

**Note a 1 bedroom unit, will only include a vestibule of 30 s.f., guest laundry of 75 s.f., and a housekeeping room of 75 s.f.**